

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026565**Date Inspected:** 25-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

This Quality Assurance Inspector (QAI) was present at the SAS OBG segment 14W located at Pier 7. The following items were observed.

This QA Inspector randomly observed ABF personnel bolting Traveler Rail Support Assemblies SA8507A and SA8508A to segment 14W. The assemblies are being bolted to the segment in preparation for welding the assemblies together at the kicker plates. After bolting was completed on assembly SA8507A except where CJP weld interfered on bent plate X8526A. and segment support blocked bolt holes on kicker plate X8526C, the welder, Gilbert Perlata observed excessive gap (approximately 6mm) between kicker plate X8526D and vertical tube X8525A to allow welding. This issue was brought to the attention of ABF Engineer Katherine Quillin who directed the welder to not weld the kicker plate X8526D to vertical tube X8525A and proceed with welding shim plates to bent plate X8526A per RFI 2602R0. QC Inspector Salvador Merino observed that the east side shim plate tapered over the length of the shim plate and was too thin to perform the 9mm partial joint penetration weld required per RFI 2602R0. See attached picture. This issue was brought to the attention of ABF Engineer Katherine Quillin who directed the welder to weld the side as far as material thickness allowed and wrap the weld around the end as far as material thickness allowed.

The QAI periodically observed AB/F approved welder Kevin Kananen assisted by Gilbert Perlata welding Assembly SA8507A shim plates to bent plate X8526A utilizing the Shielded Metal Arc Welding (SMAW) process in the 2G (horizontal) position with AWS E-7018 filler metal per ABF – WPS - D15 – 1081 rev 1. AB/F QC Inspector Salvador Merino was present to monitor the progress and verify that the welding parameters were within the limits established by the approved WPS. The west shim plate was welded per RFI 2602R0 and the east shim

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plate was welded for 400mm of the 760mm total length and wrapped around one end for 35mm. This change in weld length was brought to the attention of Structural Materials Representative Bahjat Dagher.

The QAI periodically observed AB/F approved welder Kevin Kananen assisted by Gilbert Perlata welding Assembly SA8508A shim plates to bent plate X8528A utilizing the Shielded Metal Arc Welding (SMAW) process in the 2G (horizontal) position with AWS E-7018 filler metal per ABF – WPS - D15 – 1081 rev 1. AB/F QC Inspector Salvador Merino was present to monitor the progress and verify that the welding parameters were within the limits established by the approved WPS. The west shim plate was welded per RFI 2602R0 and the east shim plate was found to be 2 shim plates installed side by side in lieu of one continuous shim plate. The weld was interrupted at the end of each shim plate. See attached picture. This change in shim plate length was brought to the attention of Structural Materials Representative Bahjat Dagher.

This Quality Assurance (QA) Inspector conducted a survey of Miss-drilled” bolt hole locations identified in Team China RFI 348R9 and repaired by ABF personnel on OBG segment 14W.

Location 3; Hole has penetrated into an existing weld access hole on the shear plate but part of shear plate remains. The rat hole has a radius that is not consistent through the shear plate in accordance with AWS D1.5 paragraph 3.2.5 requirements. Bolt has not been installed.

Location 11; Hole has penetrated into an existing weld access hole on the shear plate. A rat hole with a radius that is not consistent through the shear plate in accordance with AWS D1.5 paragraph 3.2.5 requirements. Bolt has not been installed.





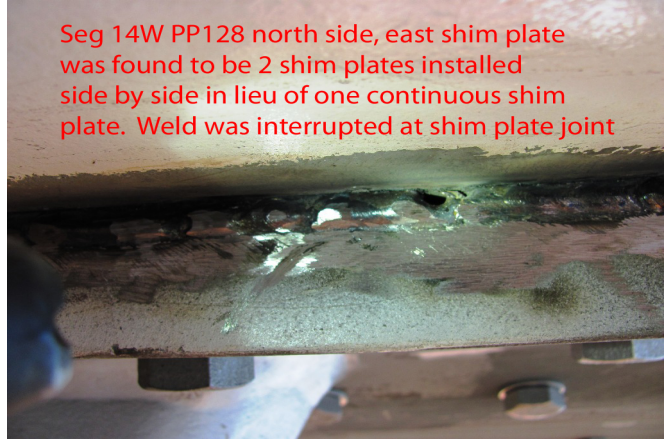
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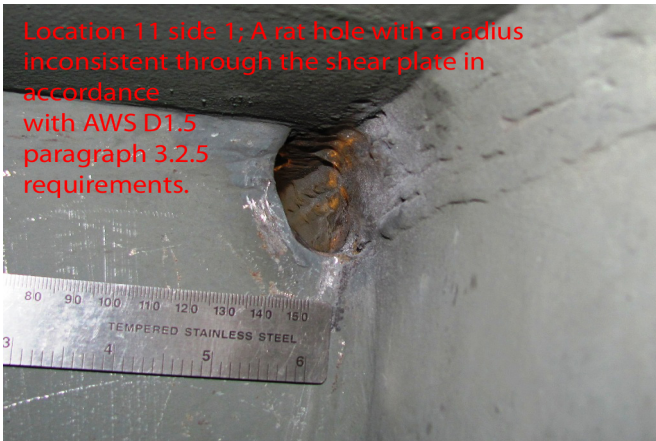
Seg 14W PP128 south side, east shim plate was welded for 400mm of the 760mm total length and wrapped around one end for 35mm due to shim thickness.



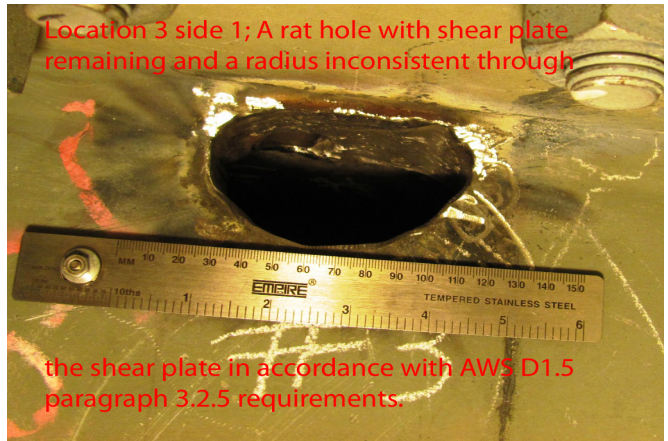
Seg 14W PP128 north side, east shim plate was found to be 2 shim plates installed side by side in lieu of one continuous shim plate. Weld was interrupted at shim plate joint



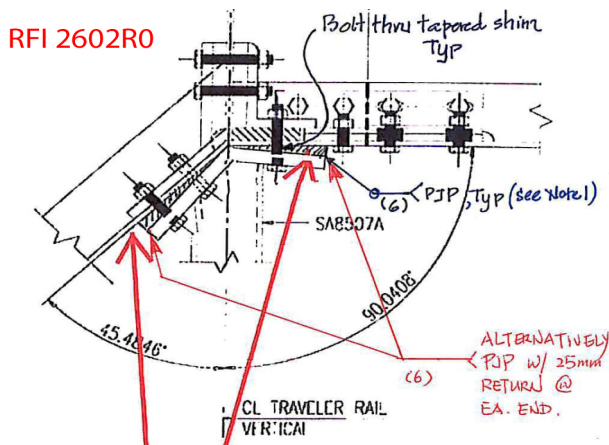
Location 11 side 1; A rat hole with a radius inconsistent through the shear plate in accordance with AWS D1.5 paragraph 3.2.5 requirements.



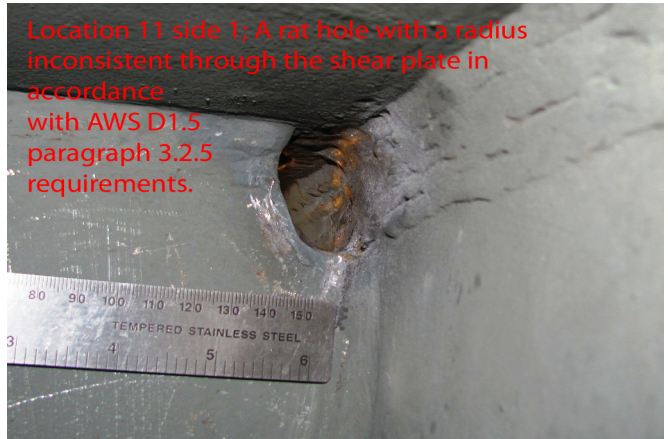
Location 3 side 1; A rat hole with shear plate remaining and a radius inconsistent through



the shear plate in accordance with AWS D1.5 paragraph 3.2.5 requirements.



Location 11 side 1; A rat hole with a radius inconsistent through the shear plate in accordance with AWS D1.5 paragraph 3.2.5 requirements.



## Summary of Conversations:

As noted above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lanz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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